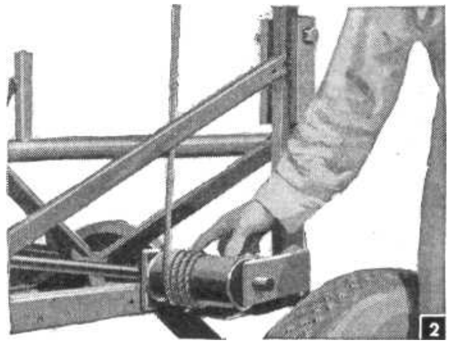
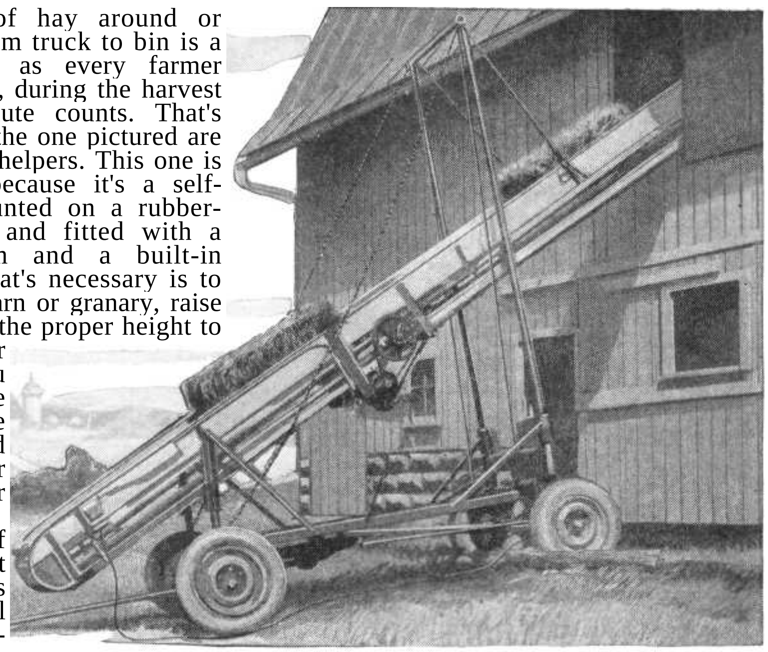
MECHANICAL *"Hired Man"*

Designed and built by Herschcl Huss of Indiana, this electrically driven farm elevator handles both grain and baled hay

Above, motor mount is adjustable for proper belt tension. Below, raising cables wind on steel drums

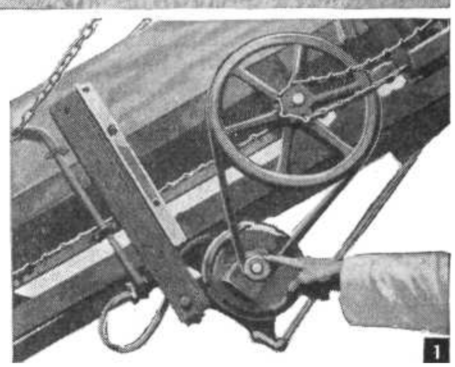


TOSSING bales of hay around or scooping grain from truck to bin is a dusty, tiring ;ob, as every farmer knows. And always, during the harvest season, every minute counts. That's why elevators like the one pictured are so popular as farm helpers. This one is especially handy because it's a self-contained unit mounted on a rubber-tired trailer truck and fitted with a raising mechanism and a built-in motor drive. All that's necessary is to back it up to the barn or granary, raise the conveyor leg to the proper height to deliver the hay or grain where you want it, plug the motor into the power source and you're ready for work, all in a matter of minutes.



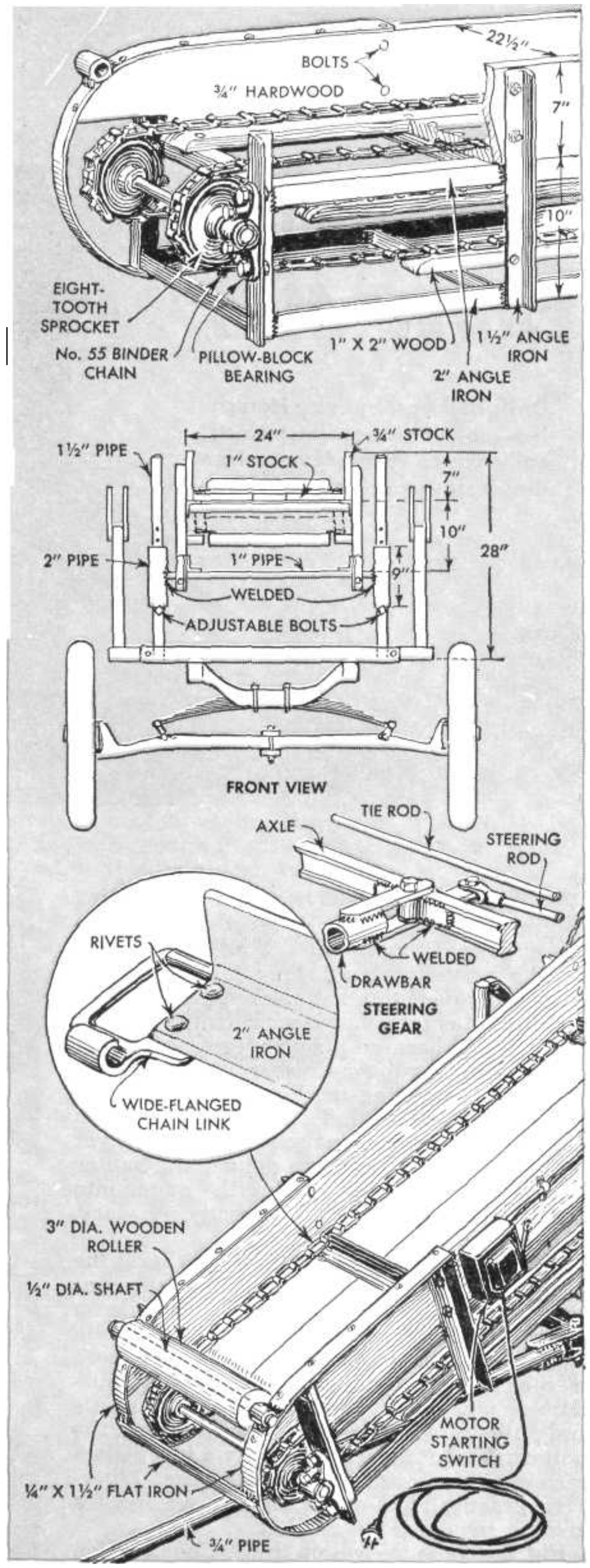
The builder of this particular unit used the angles from old windmill towers for the conveyor frame, the trailer or truck was made up by working over a Ford Model-T chassis, and for the balance of the construction he used salvage from the farm scrap pile and purchased, new, such parts as sprockets, shafts and pulleys. With this method of building, the unit can be put together for only a few dollars cash exclusive of the motor or engine. Wherever practical, the parts are arc-welded for greater strength and rigidity.

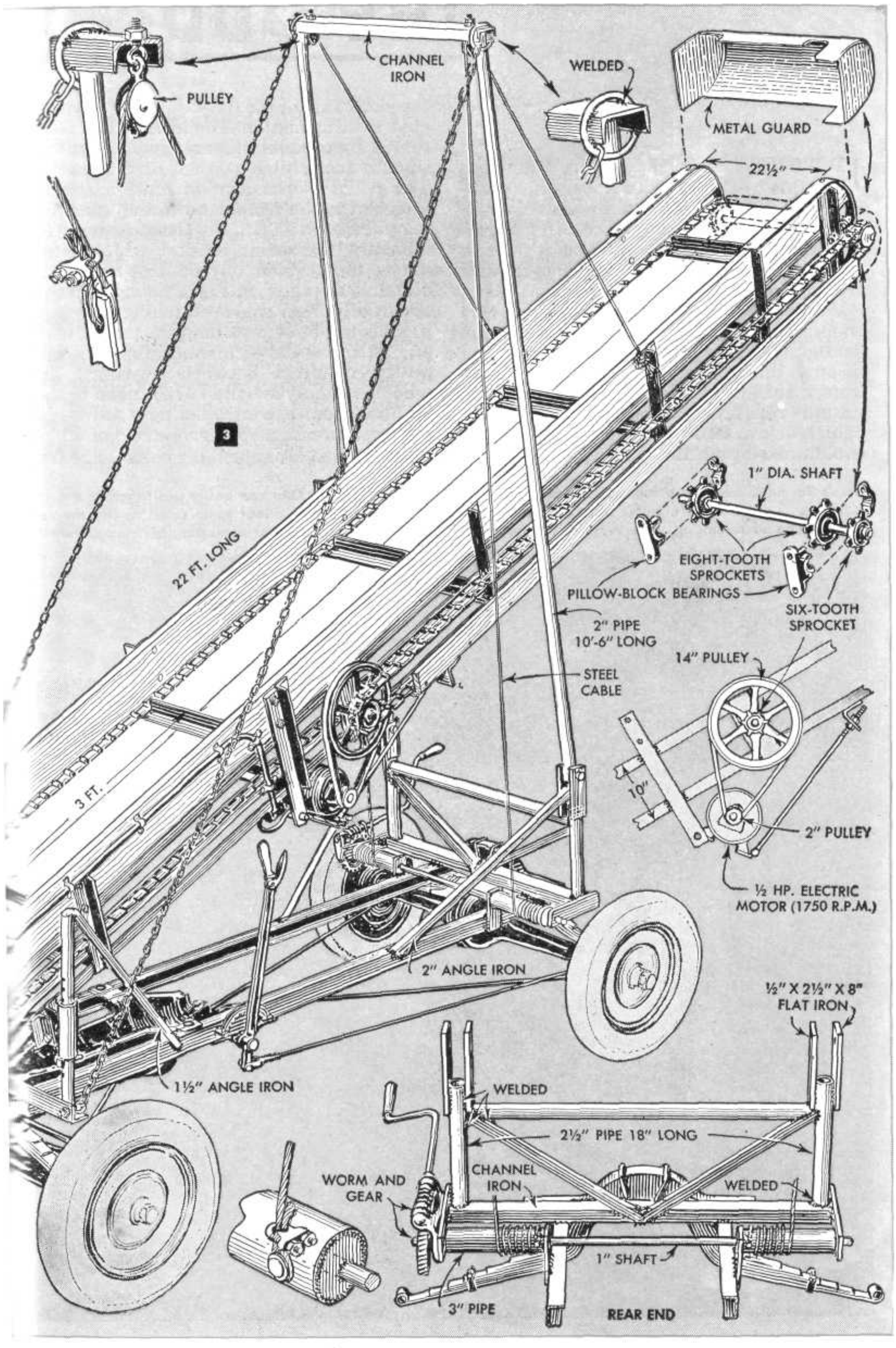
Fig. 3 details the whole thing. Construction



can start with either the truck or the conveyor leg, which in this case is 22 ft. long. Any changes in the length will require that the truck chassis be lengthened correspondingly, and that the driving motor be larger to handle the extra load. Notice in the front view, Fig. 3, that the forward end of the conveyor is adjustable for height. Although ordinary pillow-block bearings are shown carrying the sprocket shafts at both ends of the conveyor you can purchase standard elevator parts which consist of bearing fixtures with sliding adjustments for tightening the chain to the proper tension. You can readily see how the conveyor lift operates from study of the details in Fig. 3. The raising mechanism, or winch, is a stock item but the worm gear can usually be obtained from the scrap pile. Winding drums are made up by welding ends into sections of 3-in. pipe and then welding the drums onto a suitable shaft, Fig. 2. Other parts of the raising mechanism can be almost anything you have at hand that will serve the purpose.

The construction of the conveyor calls for a little more care. It should be of exact width throughout the length, otherwise the chain may bind. Also, the angle-iron conveyor lifts or drags should be cut to exact length for the same reason. Drags are 3 ft. apart, a distance convenient for handling baled hay but a little slow for ear corn and, of course, not suitable for small grain, except possibly an occasional job. More drags can be added to give a spacing of 1 ft. or so if you handle grain principally. Even with the narrow spacing of the drags, the elevator will handle hay bales quite well. Although not detailed, many farmers fit this type of elevator with a small sheet-metal hopper with flared sides. The hopper makes it easier to handle fine material or small grains. As shown in Fig. 1 and a detail in Fig. 3, the motor is mounted on a pivot arrangement provided with a screw for adjusting tension of the V-belt. Although a 1/2-hp. motor is specified, a 3/4 or 1-hp. motor will drive the elevator at maximum capacity. The motor should be of the repulsion-induction type to handle a heavy starting load.




PULLEY
CHANNEL IRON
WELDED
METAL GUARD
22½"
3
22 FT. LONG
1" DIA. SHAFT
EIGHT-TOOTH SPROCKETS
PILLOW-BLOCK BEARINGS
SIX-TOOTH SPROCKET
2" PIPE 10'-6" LONG
14" PULLEY
STEEL CABLE
3 FT.
10"
2" PULLEY
½ HP. ELECTRIC MOTOR (1750 R.P.M.)
2" ANGLE IRON
½" X 2½" X 8" FLAT IRON
1½" ANGLE IRON
WELDED
2½" PIPE 18" LONG
WORM AND GEAR
CHANNEL IRON
WELDED
1" SHAFT
3" PIPE
REAR END